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Sierra Club, Cascade Chapter
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Thank you for the opportunity to comment on proposed changes the Washington State Energy Code. The Cascade chapter of the Sierra Club, representing over 25,000 Washington residents, firmly believes that energy efficiency is the most cost effective and environmentally friendly means of meeting our growing demand for energy while reducing greenhouse gas pollution. In fact, improved energy efficiency is the *only* means of meeting demand growth with negative real costs, saving building owner / operators on their energy bills and all Washington ratepayers the costs of new generation.

The State Building Code Council plays a uniquely important role in maximizing the efficiency of Washington's homes, businesses, and other buildings:

- The energy code levels the playing field, ensuring that developers who invest in energy efficiency do not find themselves at a competitive disadvantage.
- The code lessens conflicts of interest between developers seeking to minimize upfront costs and buyers concerned about the long-term cost of ownership.
- The energy code reduces lost-opportunity costs by ensuring that energy efficiency is designed into new buildings, as opposed to more expensive and less effective retrofits.

The SBCC's draft proposal represents a major step forward in protecting Washington's economic competitiveness and meeting the challenges of climate change. The remarkably

low estimated costs of compliance provide strong evidence that we can also meet the long-term requirements of SB5854 without unduly burdening building designers, owners, or Washington's economy.

The proposed changes provide several particularly important improvements over the existing code, including:

- Required air leakage control and pressure testing to ensure that building performance is verified under as-built conditions.
- High efficiency lighting and programmable thermostats will provide an almost immediate return on investment.
- Prominently posted insulation and efficiency certificates provide an added incentive for builders to exceed the minimum requirements of the code.
- The flexible compliance mechanisms created by Chapter 9 encourage the adoption of advance energy efficiency technologies without the limitations of a prescriptive approach.
- The Chapter 4 requirement for improvements over the "standard design" ensures overall gains in energy efficiency while maintaining the flexibility of a system-wide approach.

While the proposed changes certainly provide for significant improvement over the 2006 code, the draft does not, in fact meet Governor Gregoire's request for a 30% gain in efficiency. Given the Department of Commerce's current estimate that a typical homeowner will achieve a 25% reduction in utility bills, and be in a positive cash flow position in less than one year, it seems likely that the final revision could come closer to that 30% goal while actually saving owners even more money. Certainly, any efficiency improvement on a new building with an estimated payback of less than 10 years should be considered "cost effective".

Chapter 4 provides designers with maximum flexibility in compliance with the energy code, and should allow for significant improvements over the standard design at the lowest possible cost. However, given that homes built under the more prescriptive

requirements of Chapters 5, 6, and 9 are expected to achieve a 20 – 25% improvement, the requirements of Chapter 4 should be at least this stringent. The Council should consider raising the compliance threshold from 16% to 20%.

Certain technologies add minimal cost to new construction, but substantial cost when installed as a retrofit. The new requirements added under Chapter 9 provide an ideal means of addressing this issue. As such, the Council should also consider raising the minimum requirement for Chapter 9 from 2.0 to 2.5 - 3.0 credits, while providing additional compliance options focused on emerging technologies. Examples include wastewater heat recovery systems (e.g. gravity film heat exchangers), ultra-efficient envelope and heating systems (i.e. passive houses), and pre-wiring new homes for solar photovoltaic systems. These are significant investments when added as a retrofit, but add only minimal costs when designed into new homes.

The Sierra Club appreciates the tremendous effort of the Council and Technical Advisory Group in assembling an impressive package of improvements to the state's energy code. We encourage the Council to pass the full package of improvements and strengthen them further where appropriate.

Sincerely,

Aaron Robins
Sierra Club Cascade Chapter Energy Chair